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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,297	09/25/2003	Willard E. Wood	11816.56USU1	4458
23552	7590	08/05/2005	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			ASINOVSKY, OLGA	
			ART UNIT	PAPER NUMBER
			1711	
DATE MAILED: 08/05/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/672,297

Applicant(s)

WOOD ET AL.

Examiner

Olga Asinovsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 16-31 and 82-99 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-31 and 82-99 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

Cancellation of claims 1-15, 32-81 and 100-161 is noted.

### ***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. (A). Claims 16-31 and 82-99 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-65 of copending Application No. 11/023,288 having a Pub. No. US 2005/0131119 A1. Although the conflicting claims are not identical, they are not patentably distinct from each other because a chemical formulation of a thermoplastic polymer in claims 1-65 of Application 11/023,288 is within the scope of the chemical formulation of a thermoplastic polymer in the present claims.

3. The difference between claims 1-65 of Application 11/023,288 and the present claims is the requirement in claims 1-65 of Application 11/023,288 of a lubricant.

4. It would have been obvious to one of ordinary skill in the art to use a thermoplastic polymer composition in claims 1-65 of Application 11/023,288 and to

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consider that a lubricant is a conventional additive in a thermoplastic polymer industry. A lubricant could be expected in the present invention. Claim 16 of Application 11/023,288 discloses a shaped polyolefin in the form of a chip comprising a lubricant. Thus, the formation of a chip form by using a thermoplastic polymer composition in claims 1-65 of Application 11/023,288 is the same that in the present claims.

5. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 103***

6. Claims 16-31 and 82-99 are rejected under 35 U.S.C. 103(a) as being obvious over Wood Pub. No.: US 2005/0131119 A1.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer

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in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2). For the explanation see paragraph 3 above.

In addition, Wood Pub. No. US 2005/0131119 A1 (Application no. 11/023,288), discloses a functionalized polyolefin with a maleic acid or maleic anhydride, and, than a cyclodextrin is grafted onto a functionalized polyolefin, col. 6, paragraph [0038], col. 9, paragraph [0061] and col. 4, paragraph [0029]. The functionalized polyolefin grafted with maleic anhydride, column 9, paragraph [0061] is readable in the present claims 16 and 82. The grafted cyclodextrin onto a functionalized polyolefin is readable in the present claims 16 and 82. A thermoplastic polymer composition comprises a blend of a polyolefin and a chemically-modified polyolefin resin, claim 1 at column 20.

7. It would have been obvious to one of ordinary skill in the art to use a thermoplastic polymer composition in Wood Pub. No. '119 invention and to consider that a lubricant is a conventional additive in a thermoplastic polymer based on polyolefin. A lubricant could be expected in the present invention. Claim 16 at column 21 in Wood invention discloses a shaped polyolefin in the form of a chip comprising a lubricant. Thus, the utility of using a thermoplastic polymer composition in Wood invention is the same that in the present claims.

8. (B). Claims 16-31 and 82-99 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over

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claims 1-18 of copending Application No. 10/656,670 having Pub. No. US 2005/0053784 A1. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-18 of Application No. 10/656,670 discloses a blend of polyolefin fibers with a cyclodextrin material wherein said cyclodextrin material is a cyclodextrin having substituent of maleated polyethylene, claims 1, 8 and 13-14 of Application No. 10,656,670. A thermoplastic polymer in claims 1-18 of Application No. 10/656,670 is readable in the present claims.

9. The difference between the present claims and claims of Application No. 10/656,670 is that claims 1-18 of Application No. 10/656,670 claim a fiber material and malodor scavenging agent.

10. It would have been obvious to one of ordinary skill in the art to consider that malodor scavenging agent is an additive that is non-reactive material; and said additive can be present in the instant invention. Also, a fiber material formed from thermoplastic polymer in claims 1-18 of Application No. 10/656,670 is a variant of producing an article, any article can be formed from extrudable thermoplastic polymer by conventional methods as used in the industry.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11. Claims 16-31 and 82-99 are rejected under 35 U.S.C. 103(a) as being obvious over Wood et al Pub. No.: US 2005/0053784 A1.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

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only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2). For the explanation see paragraph 10 above.

In addition, Wood'Pub. No. '784 discloses a polymer material of the fibers including polyethylene, polypropylene at column 3, paragraph [0042]. A modified cyclodextrin is dispersed in the fibers, col. 2, paragraph [0019]. The amount of cyclodextrin derivative in the fiber material is in the range from about 0.01 to 5.0 wt.%, col. 4, paragraph [0053]. A derivatized cyclodextrin can be modified by an acylation reaction using acid anhydride, col. 5, paragraph [0063]. The fibers can have a diameter of from about 10 to 100 microns, column 3, paragraph [0048]. Cutting said fibers into chips is a conventional method in the industry. A cyclodextrin-containing thermoplastic

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material is prepared by physically mixing by melt-extrusion technique, col. 6, paragraph [0077].

12. It would have been obvious to one of ordinary skill in the art to consider that malodor scavenging agent is an additive that is non-reactive material; and said additive can be present in the instant invention. Also, a fiber material formed from thermoplastic polymer in claims 1-18 of Application No. 10/656,670 is a variant of producing an article, any article can be formed from extrudable thermoplastic polymer by conventional methods as used in the industry.

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 16-31 and 82-99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al U.S. Patent 5,882,565.

Wood' 565 discloses a thermoplastic polymer composition that can be extruded, laminated or molded into sheets, structures or shaped using conventional processing technology, col. 1, lines 11-30. Wood' 565 discloses the derivatization of the cyclodextrin for forming compatible cyclodextrin compatible with a thermoplastic material including polyolefin, col. 4, lines 11- 29. A derivatized cyclodextrin having a functional group is produced by a reaction of the primary or secondary hydroxyls of the cyclodextrin molecule with acid group, col. 10, lines 8-35. The acylation reaction can be



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conducted using the appropriate acid anhydride, col. 10, lines 42-43. Any source of acid anhydride including a maleic acid anhydride is readable in Wood' 565. The derivatized cyclodextrin (modified cyclodextrin) can be blended into the thermoplastic polymer, col. 13, lines 27-41 and 56-57. Blend of said derivatized cyclodextrin with a polyolefin is a modified polyolefin resin in the present claim. Also, Wood discloses that a compatible modified cyclodextrin is a polymer compatible cyclodextrin, claim 1 at column 31. The thermoplastic polymer can be polyethylene, polypropylene having a melt index from 0.2 to 3 grams/10 mins, col. 6, lines 28-30 and 58-62. Using melt extrusion technique with selected die a shaped article can be formed, col. 7, lines 4-29. In the present claims 16 and 82 a blend of a polyolefin resin and a modified polyolefin resin could be the same starting polyolefin.

It would have been obvious to one of ordinary skill in the art to consider that a blend of a derivatized modified compatible cyclodextrin with polyolefin is a modified polyolefin in Wood' 565 and a thermoplastic polymer composition in Wood'565 can include any additional unmodified polyolefin resin being present at any amount since the starting polyolefin can be the same polyolefin. The thermoplastic polymer composition in Wood' 565 comprises a blend of unmodified polyolefin and "the polymer compatible cyclodextrin" that is a compatible cyclodextrin modified polyolefin, claim 1 at column 31.

Wood'565 does not disclose a bonding=grafting cyclodextrin on to a backbone of the polymer through a maleic acid residue before blending with a thermoplastic polymer, for the present claim 82. However, Wood' 565 discloses a chemical reaction of the primary

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or secondary hydroxyls of the cyclodextrin with acid anhydride group for producing the derivatized cyclodextrin compatible with polyolefin resin. It would have been obvious to one of ordinary skill in the art to consider that an acid anhydride group can include maleic acid anhydride being grafted on to polyolefin backbone such that a chemical reaction is obtained between the primary or secondary hydroxyls of the cyclodextrin with acid anhydride group for producing a modified polyolefin, since any source of acid anhydride moiety is readable in Wood'565 at column 10, lines 42-43; and because Wood'565 discloses a compatible melt blend of the thermoplastic polymer and the polymer compatible cyclodextrin.

The new drawings 2-6 are still not readable.

### ***Claim Objections***

In claim 18, line 2, the phrase "wherein the polyolefin" should be deleted as the same second appearance.

Claim 99 is redundant being the same to claim 98.

In light of the new rejections, this action is not final.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Asinovsky whose telephone number is 571-272-1066. The examiner can normally be reached on 9:00 to 5:30 pm.

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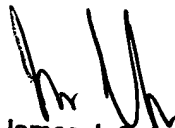
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



July 29, 2005

Olga Asinovsky  
Examiner  
Art Unit 1711



James J. Seidleck  
Supervisory Patent Examiner  
Technology Center 1700